

ABSTRACT OF THE DISCLOSURE

A process and apparatus for embossing thermoplastic products having precise microstructured surfaces including using a continuous press having upper and lower belts with the embossing pattern(s); feeding thermoplastic material through the press where heat and pressure are applied to form the embossed pressure microstructure, and cooling the embossed material, all while maintaining pressure. A continuous embossing tool is provided by welding segments together, the welds including interface material at the weld joint which is of a different material than the segment material to increase the tensile strength.